

*January 17, 1895.*

The LORD KELVIN, D.C.L., LL.D., President, followed by Sir JOHN EVANS, K.C.B., D.C.L., LL.D., Vice-President and Treasurer, in the Chair.

A List of the Presents received was laid on the table, and thanks ordered for them.

The following Papers were read :—

I. “The Trusts of the Royal Society.” By Sir JOHN EVANS, K.C.B., Treasurer R.S. Received January 7, 1895.

It may be of interest to the Fellows if I give a succinct account of the various trusts that the Society administers, their origin and progress, the application of the income of the funds, and their present financial position. I will take them in the order in which they are arranged on our annual balance sheet, on which in each case full particulars of capital, income, and expenditure, are clearly given.

A considerably larger amount of detail as to the foundation of the older funds will be found in Weld's History of the Royal Society and in an anniversary address delivered by the late Mr. Spottiswoode, as treasurer, in 1874. On the present occasion I propose to treat the subject as briefly as possible with due regard to clearness.

#### NO. 1. THE SCIENTIFIC RELIEF FUND.

This most excellent and valuable institution originated in the year 1859, in a proposition of Mr. J. P. Gassiot that a fund of this kind should be founded for the aid of such scientific men, or their families, as may from time to time require assistance. A circular announcing the project was issued by the Society, in May, 1859, and by the following July £2500 had been subscribed. By the end of 1864, the amount of £5000 had been reached, and by 1868 the fund consisted of £6052 17s. 8d., New 3 per cent. Annuities.

Until 1884 the amount remained stationary at a little under £6500, but legacies, from the late Sir W. Siemens, of £1000, and from Mr. Bentham, of about £500, gave it a sensible help.

In November, 1885, however, a noble offer was made by Sir William, now Lord Armstrong, to present a sum of about £6500 to

the fund on the understanding that an equal sum should be raised by subscription, and further that the fund might be used in cases of urgent necessity for the remission of the fees of Fellows.

Although by the beginning of 1887 it was not found possible to raise more than about £4200 by subscription, Lord Armstrong, in February, 1887, munificently increased his contribution to £7800, so that in all £12,000 were added to the fund. Since that date about £800 more have accrued from bequests from Mr. H. B. Brady and others, and from donations. The permanent invested capital of the fund now consists of

£6000 London and North-Western Railway 4 per cent. Guaranteed Stock ;

£7200 Great Northern Railway 3 per cent. Debenture Stock ;  
and

£4340 South Eastern Railway 5 per cent. Debenture Stock ;

producing an income of about £670 and of the saleable value of upwards of £24,000.

The grants last year were unusually high, amounting to £982 5s. ; but the available balance in hand is still over £500.

The administration of the fund is entrusted to a committee consisting of ten members of whom two retire annually, and applications for grants are made through the Presidents of nine chartered scientific societies, including the Royal Society of Edinburgh and the Royal Irish Academy, who may recommend the cases for consideration by the Committee. It has not of late years been the custom for any officer of the Society to be a member of this Committee.

## NO. 2. THE DONATION FUND.

In 1828 the late William Hyde Wollaston, M.D., at one time President of the Society, gave the sum of £2000 3 per cent. Consols, to be called the Donation Fund, the dividends to be applied from time to time in promoting experimental researches, or in rewarding those by whom such researches may have been made, or in such other manner as shall appear to the President and Council for the time being most conducive to the interests of the Society in particular, or of science in general. The application of the funds extends to individuals of all countries, but not to members of the Council of the Society. The dividends are not to be hoarded parsimoniously, but expended liberally. About £1400 more were contributed to the fund by Dr. Davies Gilbert (who gave £1000) and others. In 1874 and 1875 two legacies of £500 each were received from Sir Francis Ronalds, F.R.S., and Sir Charles Wheatstone, F.R.S., and the fund for some years consisted of £6339 Consols, which in 1888 was con-

verted into £5030 Great Northern Railway Perpetual 4 per cent. Guaranteed Stock, producing an income of about £200 per annum. In the year 1879 the late Sir Walter C. Trevelyan bequeathed a sum of £1500, the interest to be applied in the promotion of scientific research. This was invested in the purchase of £1396 Great Northern Railway 4 per cent. Debenture Stock, now converted into £1861 6s. 8d. 3 per cent. Debenture Stock, and forms practically a part of the Donation Fund. The interest of the Jodrell Fund is also transferred to it, so that the annual income is about £390. The grants last year, however, amounted to £665, though they left a balance of £364 5s. 4d. in hand.

### NO. 3. THE RUMFORD FUND.

Count Rumford, in a letter to Sir Joseph Banks dated 12th July, 1796, informed him, as President of the Society, that he had purchased and transferred £1000 Stock in the funds of this country, to the end that the interest of the same should be given once every second year as a premium to the author of the most important discovery or useful improvement which shall be made or published by printing, or in any way made known to the public in any part of Europe during the preceding two years on heat or on light, the preference always being given to such discoveries as shall, in the opinion of the President and Council, tend most to promote the good of mankind. The premium is to take the form of two medals, the one of gold and the other of silver, to be together of the value of two years' interest on the £1000, or £60 sterling. In case of there being no new discovery in heat or light during any term of years which, in the opinion of the President and Council, is of sufficient importance to deserve the premium, direction is given to invest its value in the purchase of additional stock in the English Funds, and the interest of this additional capital is to be given in money, with the two medals, at each succeeding adjudication. In a subsequent letter, Count Rumford suggests that the premium should be limited to new discoveries tending to improve the theories of fire, of heat, of light, and of colours, and to new inventions and contrivances by which the generation, and preservation, and management of heat and of light may be facilitated. Chemical discoveries and improvements in optics, so far as they answer any of these conditions, are to be within the limits of the premium, but the Count wishes especially to encourage such practical improvements in the management of heat and light as tend directly and powerfully to increase the enjoyments and comforts of life, especially in the lower and more numerous classes of society. The first recipient of the medals was Count Rumford himself. Previously to 1846 it was not unfrequently the case that no medal

was adjudicated for four years. Indeed between 1818 and 1832 the only recipient was M. Fresnel. As a consequence the invested funds have increased to £2330, but the interest is now only  $2\frac{3}{4}$  per cent., and will in 1903 be only  $2\frac{1}{2}$  per cent. A bonus on the conversion of the Stock, including an additional quarter's interest, and some returned income tax, either have been, or immediately will be, added to capital. The annual income is at present about £64, and the sum of money that accompanies the medal about £68. In adjudicating this and other medals the following procedure is adopted. At a specified meeting of the Council members are invited to suggest a name or names thought worthy of consideration. At a subsequent meeting, held before the midsummer recess, names are formally proposed and carefully prepared statements of the claims on which the proposals are based are circulated among the members of the Council. At a Council meeting in October these claims are discussed, and finally, at a meeting in November, the medals are adjudged.

#### NO. 4. BAKERIAN AND COPLEY MEDAL FUND.

There has for many years been only one amalgamated fund for these two objects. It now consists of £403 9s. 8d. New  $2\frac{1}{2}$  per cent. Consols. The Bakerian Lecture originated in 1775, through a bequest of Mr. Henry Baker, F.R.S., of £100, for an oration or discourse, to be spoken or read yearly by some one of the Fellows of the Society, on such part of natural history or experimental philosophy, at such time and in such manner as the President and Council of the Society for the time being shall please to order and appoint. In case no lecture be given, there is a pain of forfeiture attached to the bequest. The payment to the lecturer has for many years been a fixed sum of £4.

The Copley Medal, which has long been regarded as the highest scientific distinction that the Royal Society can bestow, originated in a legacy of £100 from Sir Godfrey Copley, Bart., F.R.S., received in 1709. The testator directed that this sum should be laid out in experiments or otherwise for the benefit of the Society, as they shall direct and appoint. For many years the interest of the fund was paid to Dr. Desaguliers, Curator to the Society, for various experiments made before them, but in 1736 Martin Folkes, who subsequently became President of the Society, proposed to render Sir Godfrey Copley's donation more beneficial than at that time it was. His suggestion was that instead of the annual experiment, "a medal or other honorary prize should be bestowed on the person whose experiment should be best approved, by which means he apprehended a laudable emulation might be excited among men of genius to try their invention, who in all probability may never be moved for the

sake of lucre." Eventually, in 1736, it was resolved that a medal of the value of £5, to bear the arms of the Society, should be awarded to the author of the most important scientific discovery or contribution to science by experiment or otherwise. The weight of the medal was fixed at 1 oz. 2 dwts. of fine gold. In 1831 it was resolved that the Copley Medal shall be awarded to the living author of such philosophical research, either published or communicated to the Society, as may appear to the Council to be deserving of that honour. The particulars of the subject of the research are to be specified in the award, and there is to be no limitation as to the period when the research was made, or the country to which the author may belong.

Owing to the payments for the lecture and the medal being somewhat less than the dividends received, a balance has gradually accumulated in favour of the fund, amounting to over £100. This, however, is now being gradually reduced, for in the year 1881, Sir Joseph Copley, Bart., transferred to the Society a sum of £1666 13s. 4d. 3 per cent. Consols, "to provide in perpetuity a yearly bonus of £50, to be given to the recipient of the Copley Medal." So long as the interest was at 3 per cent., the income of £50 was produced, but now that it is reduced to  $2\frac{3}{4}$  per cent., with the near prospect of falling to  $2\frac{1}{2}$  per cent., it is insufficient for the gift. So long, however, as there has been a balance in hand in favour of the fund, the Council has thought well to fulfil Sir Joseph Copley's liberal intention.

#### NO. 5. THE KECK BEQUEST.

In the year 1719 a bequest of £500 was received from Mr. Robert Keck, who directed that the profits arising from it were "to be bestowed on some one of the Fellows, whom they shall appoint to carry on a foreign correspondence." For many years this bequest was merged in the general funds of the Society, and the proceeds applied towards the payment of the Foreign Secretary. In 1881 it was again made to appear as a separate trust fund, and £666 13s. 4d. Consols was allotted as the equivalent. This has, at the present time, been converted into £800 Midland Railway 3 per cent. Debenture Stock, and the proceeds are annually paid to the Foreign Secretary, who now receives no other honorarium.

#### NO. 6. THE WINTRINGHAM FUND.

In 1794 a sum of £1200 Consols was bequeathed to the Society by Sir Clifton Wintringham, M.D., a Fellow, payable on the decease of his widow, and subject to certain conditions. It was not, however, until 1842 that, after a tedious law suit, an amount of £1200 Consols

was transferred to the Society. It was then found that the conditions of the will were so stringent, and involved so much expense, that it was practically impossible to fulfil them, even when the rate of interest on Consols was 3 per cent. instead of, as at present,  $2\frac{3}{4}$ , or, as it will be shortly,  $2\frac{1}{2}$  per cent. There being a further provision that in case of failure on the part of the Society to fulfil the intentions of the testator, the income of the fund should be paid over to the Governors of the Foundling Hospital, that institution has in each year received the interest accruing from the fund. The subject has on several occasions been brought before the Council, and also before the legal advisers of the Society, but as yet no way out of the difficulty has been discovered.

#### NO. 7. THE CROONIAN LECTURE FUND.

This is one of the earliest institutions connected with the Society, and, in name at least, carries us back to the days of its foundation. At the meeting held on November 28, 1660, when the design for founding the Society was discussed, Mr. Croone, though absent, was nominated as the Register, or as we should now call it Registrar, of the small band of learned men who met weekly at Gresham College. Dr. Croone, as he subsequently became, was from the beginning an active Fellow of the Society, and on his death, in 1684, left a scheme for two lectureships which he intended to found, one of which was for the Royal Society. In his will, however, he made no provision for this purpose, but his widow, who subsequently became Lady Sadleir, remedied the omission, and in her will, dated September 25, 1701, bequeathed to the Society one-fifth of the clear rent of the King's Head Tavern, in or near Old Fish Street, London, at the corner of Lambeth Hill, "for the support of a lecture and illustrative experiment for the advancement of natural knowledge on local motion, or (conditionally) on such other subject as, in the opinion of the President for the time being, should be most useful in promoting the objects for which the Royal Society was instituted." A decree in Chancery, in 1728, empowered the Society to devote the whole nett annual profits of the legacy to the payment for a single lecture and its attendant expenses. The proper subject for the lecture is the nature or laws of muscular motion, to be accompanied by some anatomical demonstration. The first Croonian Lecture was delivered in 1738 by Dr. Stuart, the subject being "The Motion of the Heart." From 1786 to 1885 the property was let for £15 per annum, so that the share of the Society was only about £3, but since 1885 the rent of the estate has been materially increased, and the Society now receives a sum of about £52 yearly as its share, which is paid over by the Royal College of Physicians. The whole of the available

balance is in each year paid to the lecturer or for expenses, but the account at the present time is slightly overdrawn on account of the expenses of the last lecture having been unusually high.

#### NO. 8. THE DAVY MEDAL FUND.

By the will of Dr. John Davy, F.R.S., the service of plate presented to Sir Humphry Davy for the invention of the safety lamp, was bequeathed to the Society, to be melted down and sold, in order to found a medal to be given annually for the most important discovery in chemistry. The amount received in 1869 was invested in the purchase of £660 Madras Railway Stock, producing about £33 per annum. Some little time elapsed before the dies could be prepared, and the first medal actually awarded was given, in duplicate, to Bunsen and Kirchhoff in 1877. It was also given in duplicate in 1878, 1882, 1883, and 1893, but the fund has still a balance in hand of £48 17s. 9d.

#### NO. 9. THE GASSIOT TRUST.

In the year 1871 the late Mr. John Peter Gassiot conveyed to the Society £10,000 Italian Irrigation Bonds, for the purpose of assisting in carrying on and continuing magnetical and meteorological observations with self-recording instruments, and any other physical investigations that may from time to time be practicable and desirable in the Kew Observatory, in the Old Deer Park, Richmond, Surrey.

The proceeds are paid over to the Kew Committee appointed in accordance with the trust deed. From time to time some of the Irrigation Bonds are drawn, and a profit has been made on reinvestment. These accumulated profits are now represented by a sum of £400  $2\frac{3}{4}$  per cent. Consols, which forms a kind of reserve or insurance fund. The balance in hand in November last was £164 10s. 7d.

#### NO. 10. THE HANDLEY FUND.

By the will of Mr. E. H. Handley, dated 1840, the reversion of his property was bequeathed to the Society after the death of his sister, the income to be applied as a reward for important inventions in art or discoveries in science, physical and metaphysical, or for assistance in the prosecution of any such invention or discovery, but with power to the President and Council to apply the income as they may deem best for the advancement of science.

Owing to the Statute of Mortmain, a considerable portion of the property did not pass by this will, but eventually, in 1876, the sum of £6378 19s. was received, which, after paying Legacy Duty at the

rate of 10 per cent. and legal expenses, left sufficient to purchase £6047 7s. 9d. Reduced 3 per cents. When the rate of interest was threatened a few years ago, this was converted into £4798 Lancashire and Yorkshire Railway 4 per cent. Guaranteed Stock, producing about £195 per annum. Of late years this has been applied towards the cost of preparing the Catalogue of Scientific Papers.

#### NO. 11. THE JODRELL FUND.

The late Mr. T. J. Phillips Jodrell, in 1876, placed at the disposal of the Society the sum of £6000, at first with the intention of encouraging in this country original research in the physical sciences, but subsequently, in the same year, with directions to apply the proceeds as part of the ordinary revenue of the Society. In 1879 £1000 was, by Mr. Jodrell's directions, transferred to the Fee Reduction Fund, and the remaining £5000 is represented by the sum of £5182 14s. 10d.  $2\frac{3}{4}$  per cent. Consols, which stand in the name of the fund.

On the death of Mr. Jodrell, in 1889, the proceeds of the fund, in accordance with a letter from him of April 5, 1878, devolved to and were incorporated with the Donation Fund. The income is at present about £140, but this will be reduced when the diminution in the interest of Consols takes place.

#### NO. 12. FEE REDUCTION FUND.

This fund originated in 1878, the object being to relieve future Fellows of the Society of the £10 paid as an admission fee and of £1 out of the £4 annual subscription. These advantages, however, do not extend to the Privy Councillors and other privileged Fellows who join the Society. Most liberal sums were subscribed: Sir Joseph Whitworth contributing £2000, Sir William (now Lord) Armstrong and Mr. James Young £1000 each. The demand upon the fund keeps on, of course, increasing from year to year, but the excess of income over expenditure has been regularly invested, and the fund now consists of £4900 Metropolitan  $3\frac{1}{2}$  per cent. Stock and £9333 London and North-Western Railway 3 per cent. Debenture Stock, producing an income of about £450 per annum. The payments on account of Fellows amounted last year to £342, and inasmuch as in each year the payment in respect of the subscriptions of Fellows increases to the extent of £10 or £12, it is evident that, in the course of time, the question will have to be considered whether some modification in the amount of the reduction or some addition to the capital of the fund must not be made. The payments last year were in respect of the contributions of 192 Fellows and the admission fees of 15.



There is, however, at present over £100 per annum left for investment; so that there is no immediate danger of the fund failing. Meanwhile, if any Fellow wishes to relieve the fund of the annual payment of £1 on his account, the Treasurer will be glad to hear from him.

#### NO. 13. THE DARWIN MEMORIAL FUND.

In 1885 the Committee of the International Darwin Memorial Fund resolved to transfer to the Royal Society the balance that remained in their hands, in trust, to devote the proceeds from time to time towards the promotion of biological studies and research. The amount was invested in the purchase of £2200 South-Eastern Railway 4 per cent. Debenture Stock, which now forms the capital of the fund. The annual income is about £88. In accordance with a resolution of the Council, a medal, either in silver or in bronze, is awarded biennially in reward of work of acknowledged distinction (especially in Biology) in the field in which Mr. Darwin himself laboured. The medal is accompanied by a grant of £100, and the balance of the proceeds is from time to time to be added to the capital fund. At the November audit the balance was £461 18s. 10d., but out of this the grant of £100 to the recipient of the medal was paid at the anniversary.

#### NO. 14. THE JOULE MEMORIAL FUND.

In 1890 the Joule Memorial Committee transferred to the Society the balance in their hands, the proceeds to be applied for the encouragement of research, both in England and abroad, especially amongst younger men, in those branches of physical science more immediately connected with Joule's work. According to the regulations made by the Council, a studentship or grant is to be made every second year to assist research as already specified. These grants are to be made alternately in Great Britain and abroad. The fund consists of £1000 London Brighton and South Coast Railway Guaranteed 5 per cent. Stock and £50 on deposit, the annual income being about £50. The first scholarship of the value of £100 was conferred on Mr. J. D. Chorlton, of Owens College, Manchester, in June, 1894, but when the accounts were made up no payment had been made to him, and the balance in hand appeared as £79 19s. 4d. The half-year's payment has since been made.

#### NO. 15. THE BRADY LIBRARY FUND.

The late Mr. Henry Bowman Brady bequeathed to the Society in 1891 all his books and papers relating to the Protozoa, and also a

sum of £300, the interest of which, or the principal, or both, are from time to time to be applied in the purchase of works on the same or kindred subjects to be added to the collection. The fund, which has been placed on deposit at the bankers, now amounts to £311 19s. It is proposed to invest a portion of it in Consols.

#### NO. 16. THE GUNNING FUND.

In 1891 His Excellency Dr. Robert Halliday Gunning gave the Society his bond for £1000 bearing interest at 4 per cent. to form a fund the annual income of which shall be applied triennially towards the promotion of Physical Science and Biology in such manner as to the President and Council may appear most desirable. The three years' income, amounting to £120, has now been received, and the disposal of it awaits the decision of the President and Council.

#### NO. 17. THE BUCHANAN MEDAL FUND.

This fund dates from February, 1894, when a sum of £276 12s. and the dies for a medal were offered to the Society by the Committee of the Buchanan Fund. The amount has been invested in the purchase of £258 9s. 2d. Metropolitan 3 per cent. Stock, producing rather less than £8 per annum. The medal, which is to be of gold and of the value of about twenty guineas, is to be awarded every three or five years for distinguished service in Hygienic Science or Practice, in the direction either of original research or of professional, administrative, or constructive work. The balance in hand is to accompany the medal, which is to have no limit as to nationality. The first medal was given to Lady Buchanan by the subscribers to the fund.

Such is a brief account of the seventeen Trusts which at the present time the Society is called upon to administer, and I have only to add that the whole of the accounts of the Society, whether for general purposes or for the Trust Funds, are under the immediate care of Mr. W. B. Keen, a chartered accountant of the highest standing.